

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* JUNPEI OGAWA, TOMONORI MIYAZAWA,  
YOSHIO OKADA, JUN IKEUCHI and MASASHI YAMAGUCHI

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Appeal 2007-2800  
Application 10/771,522  
Technology Center 3600

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Decided: April 29, 2008

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Before TERRY J. OWENS, HUBERT C. LORIN, and  
JOHN C. KERINS, *Administrative Patent Judges*.

OWENS, *Administrative Patent Judge*.

DECISION ON APPEAL

The Appellants appeal from a rejection of claims 1, 2, 4, 19 and 21-25. Claims 5-18 and 26-28 have been withdrawn from consideration by the Examiner, claim 3 stands objected to but allowable if rewritten in independent form, and claim 20 stands allowable.

### THE INVENTION

The Appellants claim a connecting rod. Claim 1 is illustrative:

1. A connecting rod comprising:

a connecting beam section serving as a main body of the connecting rod;

a big end located at a first end side of the connecting beam section;

a small end located at a second end side of the connecting beam section, the second end side being axially opposite to the first end side;

a first joining section located between the connecting beam section and the big end to connect the connecting beam section and the big end; and

a second joining section located between the connecting beam section and the small end to connect the connecting beam section and the small end;

wherein each of the first and second joining sections gradually and continuously decreases in cross sectional area toward the connecting beam section and has a strength distribution in which a strength increases with a decrease in the cross sectional area.

### THE REFERENCES

Mrdjenovich	US 5,048,368	Sep. 17, 1991
Haman	US 5,737,976	Apr. 14, 1998
Yoshida (JP '317) (as translated)	JP 10-306317	Nov. 17, 1998

### THE REJECTIONS

The claims stand rejected as follows: claims 19 and 21-25 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter the Appellants regard as the invention; claims 19 and 21-25 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement; claims 1, 2 and 4 under 35 U.S.C. § 102(b) over JP '317; claim 1 under 35 U.S.C. § 102(b) over Mrdjenovich; and claim 1 under 35 U.S.C. § 102(b) over Haman.

### OPINION

We reverse the Examiner's rejections.

Rejection under 35 U.S.C. § 112, second paragraph

The relevant inquiry under 35 U.S.C. § 112, second paragraph, is whether the claim language, as it would have been interpreted by one of ordinary skill in the art in light of the Appellants' Specification, sets out and circumscribes a particular area with a reasonable degree of precision and particularity. *See In re Moore*, 439 F.2d 1232, 1235 (CCPA 1971).

The Examiner argues that it is not clear in claim 19 which portions of the connecting rod are the lowest fatigue strength portion and the variable fatigue strength portion because those portions are not shown in the drawings (Office Action mailed Sep. 22, 2005, p. 5).

The Examiner's mere assertion that claim 19 is unclear because the lowest fatigue strength portion and the variable fatigue strength portion are not indicated in the drawings does not meet the burden of establishing that

the claim language, as it would have been interpreted by one of ordinary skill in the art in light of the Appellants' Specification, fails to set out and circumscribe a particular area with a reasonable degree of precision and particularity.

We point out that claim 19 states that the lowest fatigue strength portion is in at least one of the big and small ends (20 and 60, respectively, in fig. 1). Also, figure 7 shows that the regions of lowest buckling strength include the region to the left of  $P_1$  in figure 1 (the big end) and the region to the right of  $P_6$  in figure 1 (the small end). The Specification states that "joining sections 30 and 50 [fig. 1] have a strength distribution in which their strength increases with a decrease in cross sectional area" (Spec. 11:26-28). Those are the variable fatigue strength portions.

Hence, the Examiner erred in rejecting claim 19 and its dependent claims 21-25 under 35 U.S.C. § 112, second paragraph.

Rejection under 35 U.S.C. § 112, first paragraph

A specification complies with the 35 U.S.C. § 112, first paragraph, written description requirement if it conveys with reasonable clarity to those skilled in the art that, as of the filing date sought, the inventor was in possession of the invention. *See Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563-64 (Fed. Cir. 1991).

The Examiner argues that "[t]he issue whether Appellant's claims were supported by the application as filed or not is not germane since the rejection is not based on new matter" (Ans. 4).

The Examiner is incorrect. The basis for the rejection is that the present claims 19 and 21-25 lack adequate written descriptive support in the application as filed. Thus, whether those claims have adequate written descriptive support in the original disclosure is the relevant issue.

The Examiner rejected not only the presently amended claim 19, but also the originally filed claim 19 as failing to comply with the 35 U.S.C. § 112, first paragraph, written description requirement (Office Action mailed Mar. 2, 2005, pp. 4-5). As stated in *In re Wertheim*, 541 F.2d 257, 264 (CCPA 1976), “claim 4, an originally filed claim, is its own written description in the appealed application.” The Examiner has not established that the Appellants’ originally filed claim 19, alone or in combination with the other parts of the original disclosure, fails to provide adequate written descriptive support for claim 19 as presently amended. “[T]he PTO has the initial burden of presenting evidence or reasons why persons skilled in the art would not recognize in the disclosure a description of the invention defined by the claims”, *Wertheim*, 541 F.2d at 263, and the Examiner has not met that burden.

The Examiner argues that it is unclear how the Appellants form the lowest strength portion and the variable strength portions (Office Action mailed Sep. 22, 2005, p. 5). That argument appears to be directed toward enablement rather than written description. Regardless, the Specification discloses that those portions are formed by the heating technique used (Spec. 15: 5-26; figs. 11, 21).

The Examiner argues that claim 19 lacks adequate written descriptive support because the lowest fatigue strength portion and the variable strength portion are not shown in the drawings (Office Action mailed Sep. 22, 2005, p. 4).

How a disclosure shows possession of the presently claimed invention is not material. *See In re Kaslow*, 707 F.2d 1366, 1375 (Fed. Cir. 1983); *In re Edwards*, 568 F.2d 1349, 1351-52 (CCPA 1978). Hence, contrary to the Examiner's argument, for a disclosure to show adequate written descriptive support for the presently claimed invention, the claim limitations do not necessarily have to be shown in a drawing.

Thus, the Examiner has not established a prima facie case of failure of the Appellants' original disclosure to comply with the 35 U.S.C. § 112, first paragraph, written description requirement.

#### Rejection under 35 U.S.C. § 102(b) over JP '317

JP '317 discloses a method for making a connecting rod wherein a particular steel composition is heat treated and then transformed into martensite by quenching (pp. 5-6).

The Examiner argues that the "wherein" clauses in the Appellants' claims merely express an intended result and add nothing to patentability (Office Action mailed Sep. 22, 2005, p. 6).

The Examiner is incorrect. Each of the "wherein" clauses in the Appellants' claims pertains to a structural feature of the claimed connecting rod.

The Examiner argues that the JP '317 figure 12 shows that strength increases with a decrease in the cross sectional area (Ans. 9-10).

The JP '317 figure 12 shows a hardness range of 394-397 at the large end (14a), 394-401 at the narrowest portion of the rod portion I section (14b), and 396-399 at the small end (14c). Those hardness values appear to show an essentially constant hardness throughout the connecting rod, rather than showing the increase in strength with decrease in cross sectional area argued by the Examiner. The Examiner apparently relies upon the "401" hardness in portion 14b as being greater than the "397" hardness at large end 14a or the "399" hardness at small end 14c (Ans. 9-10). The Examiner has not taken into account the hardness ranges and explained why, in view of those ranges, the variation between 397 and 401 is not within the experimental error.

The Examiner argues that both the Appellants and JP '317 use the same hardening method and that, therefore, they must both obtain the same increase in strength with decrease in cross sectional area (Ans. 10).

JP '317 does not disclose the heating method disclosed by the Appellants. JP '317 merely discloses that the connecting rod is heated (p. 6). Thus, it appears that the connecting rod is heated uniformly. The Appellants disclose heating the connecting rod using an induction coil positioned as shown in figure 11, and rotating the connecting rod during the heating (Spec. 15:14-26). The Appellants also disclose heating using what appears to be an induction coil wrapped around the connecting beam section of the connecting rod (Spec. 21:27-29; fig. 21). The Examiner has not

established that the heating in JP '317 results in the same strength distribution as the heating disclosed by the Appellants.

Hence, the Examiner has not established a prima facie case of anticipation over JP '317 of the inventions claimed in the Appellants' claim 1 or its dependent claims 2 and 4.

*Rejections over Mrdjenovich and Haman*

The Examiner points out that Mrdjenovich and Haman disclose a connecting rod that gradually and continually decreases in cross sectional area toward the connecting beam section (Office Action mailed Sep. 22, 2005, p. 7). The Examiner argues that the Appellants' claim 1 is a product-by-process claim because it "has a 'wherein' clause that merely recites an inherent result of the process step 'heat treatment'" (Ans. 11). Therefore, the Examiner argues, the burden has shifted to the Appellants to establish an unobvious difference between the claimed connecting rod and those of Mrdjenovich and Haman. *See id.*

The Appellants' claim 1 does not include a heat treatment step and is not a product-by-process claim. The "wherein" clause sets forth a structural requirement of the claimed connecting rod. The Examiner has not established that Mrdjenovich or Haman discloses the strength distribution required by that "wherein" clause.

The Examiner, therefore, has not established a prima facie case of anticipation over Mrdjenovich or Hamas of the invention claimed in the Appellants' claim 1.



**DECISION**

The rejections of claims 19 and 21-25 under 35 U.S.C. § 112, second paragraph, claims 19 and 21-25 under 35 U.S.C. § 112, first paragraph, written description requirement, claims 1, 2 and 4 under 35 U.S.C. § 102(b) over JP '317, claim 1 under 35 U.S.C. § 102(b) over Mrdjenovich, and claim 1 under 35 U.S.C. § 102(b) over Haman are reversed.

**REVERSED**

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